WORK PLAN FOR CHARACTERIZATION OF RADIOACTIVE CONTAMINATION 316 EAST ILLINOIS STREET, CHICAGO, ILLINOIS

Appendix E

Supplemental Information; Other Sampling

316 EAST ILLINOIS PROJECT
CHICAGO, ILLINOIS

Rogers & Associates Engineering Corporation
P.O. Box 330, Salt Lake City, Utah 84110-0330

September 1993

APPENDIX E

This appendix provides supplemental information related to the 316 East Illinois property.

Pages E-2 to E-16 are taken from the STS 1992 investigation report (STS92). Pages E-2 - E-8 provide a summary of the sample results from the subject investigation. Pages E-10 and E-11 are two of the boring logs and pages E-12 to E-15 are the logs for the monitoring wells. Page E-9 is a map based on the U.S.G.S. quadrangle map.

Table 2
Selected Chemical Testing Results
Results in mg/kg (parts per million)

	Sample Identification								
	TP1	TP2	TP3	TP4	TP6	B-108	B-109	B-115	B-118
Volatile Organic Compounds (VOC)								16	
Benzene	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	0.006	--	--	--
Ethylbenzene	--	--	--	--	--	0.086	--	0.014	--
Total Xylenes	--	--	--	--	--	0.240	0.089	0.180	0.010
Tetrachloroethene	0.044	0.036	--	--	--	--	--	--	--
Trichloroethene	0.023	--	--	--	--	--	--	--	--
Tetrachloromethane	--	--	--	0.014	--	--	--	--	--
Carbon Disulfide	--	--	--	0.014	--	--	--	--	--
Total Petroleum Hydrcarbons	NT	NT	NT	NT	NT	38	15000	37	22
Oil & Grease	NT	NT	NT	NT	NT	38	16000	43	34
Polynuclear Aromatic Hydrocarbons (PNA)									
Acenapthylene	NT	NT	NT	NT	NT	5.800	--	--	--
Acenapthene	NT	NT	NT	NT	NT	--	54.000	--	--
Fluorene	NT	NT	NT	NT	NT	18.000	--	--	--
Phenanthrene	NT	NT	NT	NT	NT	6.000	--	0.011	0.025
Anthracene	NT	NT	NT	NT	NT	21.000	7.500	0.004	0.0081
Fluoranthene	NT	NT	NT	NT	NT	38.000	25.000	--	--
Pyrene	NT	NT	NT	NT	NT	12.000	--	--	0.022
Benzo(a)anthracene	NT	NT	NT	NT	NT	1.300	0.950	--	0.0087
Chrysene	NT	NT	NT	NT	NT	1.500	0.770	--	0.021
Benzo(b)fluoranthene	NT	NT	NT	NT	NT	--	--	--	0.0066
Benzo(k)fluoranthene	NT	NT	NT	NT	NT	0.130	0.120	0.001	0.0058
Benzo(a)fluoranthene	NT	NT	NT	NT	NT	0.300	0.230	0.001	0.013
Benzo(g,h,i)perylene	NT	NT	NT	NT	NT	0.300	--	--	--

Legend:

NT: Not Tested
--: Result below laboratory practical quantitation level (PQL)

DLG/nt/AB1

indicator compounds (e.g. benzene, xylene, toluene, and ethylbenzene) are mostly gone. This has left the heavier, less volatile petroleum indicators, including many PNAs. The groundwater testing results showed trace to low level PNA and heavy metal detections. PNA detections can be expected from urban fill materials, as well as from petroleum product sources.

Over 20 borings, including four groundwater monitoring wells, and three test pits were performed to estimate the lateral and vertical dimensions of petroleum concentrations on site. The confines of these petroleum concentrations cover an area of approximately 24,000 square feet over a 6 to 8 foot thick area. Based on the existing testing results, the northern and southern confines of the petroleum concentrations may not be fully identified. The shallow groundwater flow direction appears to be to the south, toward the Chicago River and former Ogden Slip.

No indication of environmental impacts were observed during the subsurface exploration program from the other previously occupied areas on site or adjacent parcels. Although no indications of environmental problems in other areas on site were discovered, given the nature of the site's historical usage it is considered possible that small localized areas of contamination or sources of potential contamination such as underground storage tanks may be discovered on site during site development. It is also considered possible that the long term use of the site as a parking lot could have resulted in small and isolated areas of petroleum product contamination, none of which are likely to require remediation.

September 29. 1992

Mr. Pat Newman
POWER/CRSS
8700 W. Bryn Mawr
Chicago, IL 60631

RE: Report of Environmental Investigation of the Proposed Northwestern Memorial Hospital Facility Redevelopment Site, Located between Grand, Columbus, Illinois and McClurg Court, Chicago, IL -- STS Project No. 27313-XH

Dear Mr. Newman:

STS Consultants, Ltd. has completed the environmental investigation of the above referenced site. The investigation consisted of a series of tasks including a historical and site background review, subsurface explorations and chemical testing of selected soil samples. A discussion of the exploration methods, results, analysis and recommendations are presented in this report. The results of the concurrent geotechnical exploration program are described in a separate report.

STS has appreciated the opportunity to work with POWER/CRSS on this project. If you have any questions regarding the information contained in this draft report please do not hesitate to call.

Respectfully,

STS CONSULTANTS, LTD.

David L. Grumman, Jr.
Project Geologist

Steven A. Bucher, P.E.
Associate

Richard G. Berggreen
Principal Geologist

DLG/nt/AC1

STS Consultants Ltd.
Consulting Engineers

111 Pfingsten Road
Northbrook, Illinois 60062
708.272.6520/Fax 708.498.2721

4.0 ANALYSIS AND CONCLUSIONS

General Summary of Environmental Findings

The site investigation of the proposed Northwestern Memorial Hospital Facility Development project has been completed. The site consists of three Cityfront Center parcels bounded by Grand, Columbus and Illinois Streets and a Chicago Police building. The site investigation consisted of a review of available historical information, subsurface explorations, chemical testing, and a preliminary analysis of site remediation options. The results of the historical research reveal that the site was occupied by a variety of commercial and industrial occupants in the decades preceding and following the turn of the century. Among these occupants were a lubricating oil plant, carbonic acid manufacturer, and metal polish plant, none of which appear to have remained on site past the early 1900s. During the past 50 years, the site has reverted to mostly paved vacant land used for parking.

The subsurface exploration program discovered an area of subsurface petroleum concentrations in the vicinity of the former carbonic acid and lubricating oil plants.

Based on the chemical analyses, the source of these petroleum concentrations is a petroleum product, probably a diesel, heating or lubricating oil. The location at which these petroleum concentrations were identified corresponds to the approximate position of a former lubricating oil warehouse (1905) and three underground storage tanks used by a previous carbonic acid manufacturer (1886). The highest concentrations appear to be found near the estimated former UST area. It is not known whether the USTs remain on site.

The analytical testing results suggest that, whatever the source, the petroleum concentrations are the result of historical operations, perhaps dating back to the early 1900s. The analytical results show that many of the more volatile petroleum

REF. BASE MAP: USGS QUADRANGLE MAP
7.5 MINUTE SERIES (TOPOGRAPHIC)
CHICAGO LOOP
PHOTOREVISED 1972

N

LEGEND

SITE

- ● CERCLIS SITES
- ▲ RCRA GENERATORS AND [1] TSDS FACILITIES
- ■ UST SITES[2]
- ♦ LUST SITES[3]
- SOLID WASTE DISPOSAL SITES[4]

LEGEND

1. USEPA COMPUTER DATA BASE SEARCH DATED 5-21-91.
2. ILLINOIS STATE FIRE MARSHALL UNDERGROUND STORAGE TANKS (UST) DATA BASE 6-2-90.
3. ILLINOIS STATE FIRE MARSHALL LIST OF LEAKING UNDERGROUND STORAGE TANKS (LUST) INCIDENTS REPORT 5-1-91
4. NORTHEASTERN ILLINOIS PLANNING COMMISSION HISTORICAL INVENTORY OF SOLID WASTE DISPOSAL SITES 1987.

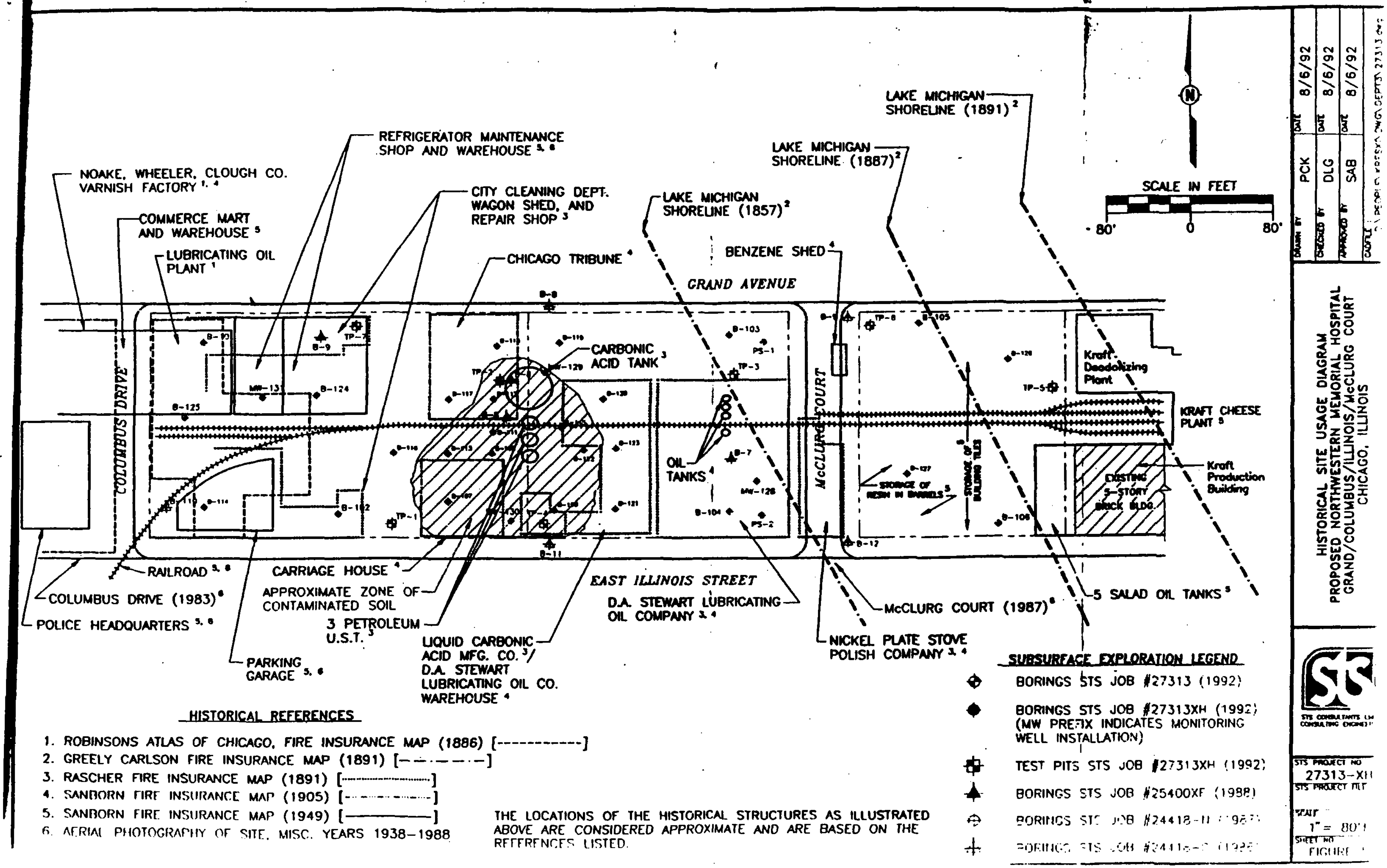
STS Consultants Ltd.
Consulting Engineers

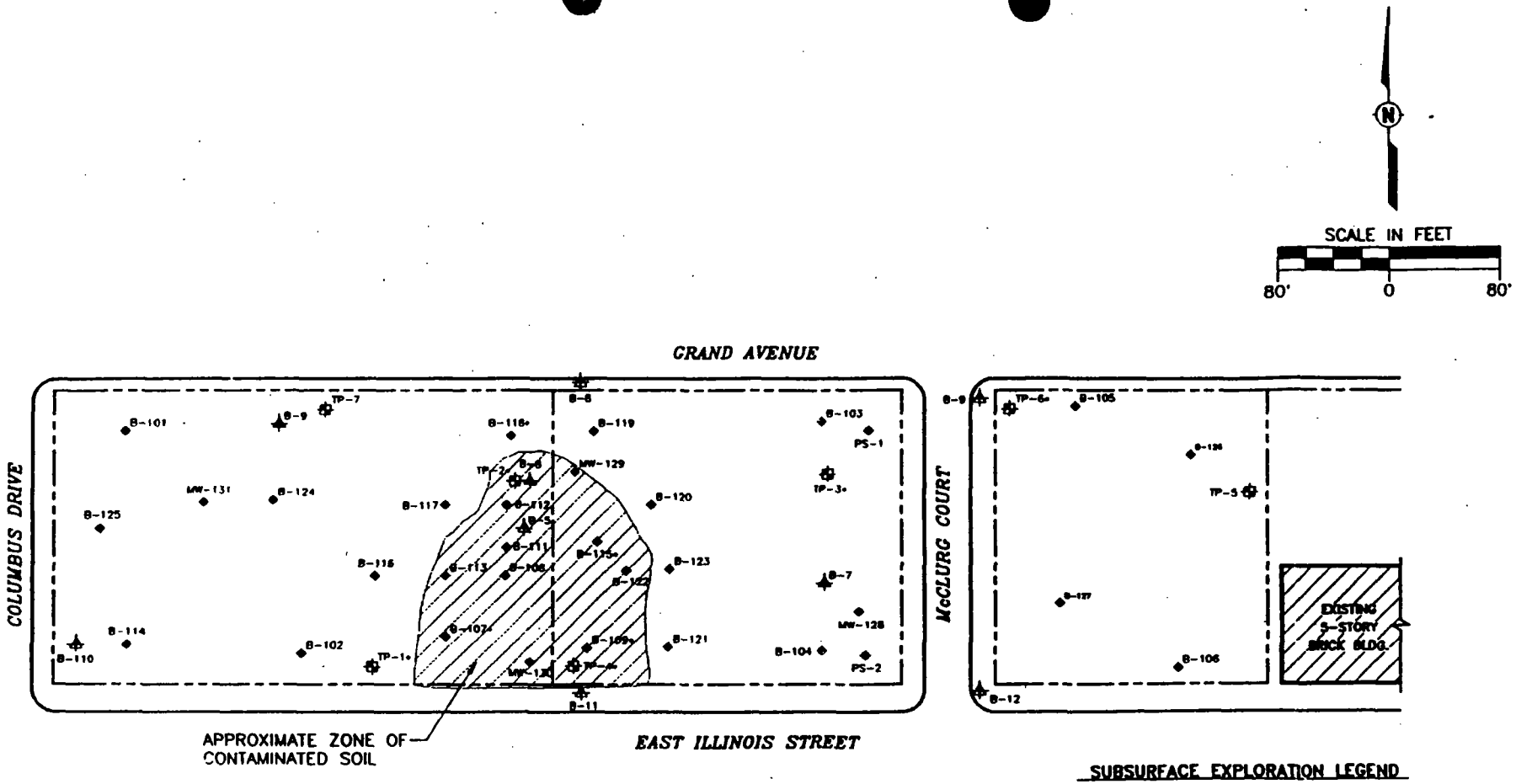
HAZARDOUS WASTE FACILITIES
LOCATED IN U.S. POSTAL ZIP CODE AREA
60601, 60602, 60603, 60604, 60606
60611 AND PORTIONS OF 60610

DRAWN BY	DATE	SCALE	STS PROJECT NO
KKB	7-15-92	SHOWN	27313-XH
CHECKED BY	DATE	SHEET NO	STS FILE NO
DLG	7-15-92		

FIGURE 6

ALL LOCATIONS ARE APPROXIMATE


LAKE MICHIGAN SHORELINE (1891) 2
LAKE MICHIGAN SHORELINE (1887) 2
LAKE MICHIGAN SHORELINE (1857) 2
REFRIGERATOR MAINTENANCE SHOP AND WAREHOUSE 5, 6
NOAKE, WHEELER, CLOUGH CO. VARNISH FACTORY 1, 4
COMMERCE MART AND WAREHOUSE 5
LUBRICATING OIL PLANT 1
CITY CLEANING DEPT. WAGON SHED, AND REPAIR SHOP 3
CHICAGO TRIBUNE 4
BENZENE SHED 4
GRAND AVENUE
CARBONIC ACID TANK 3
SCALE IN FEET
80' 0 80'
COLUMBUS DRIVE
McCLURG COURT
OIL TANKS 4
Kraft Deodorizing Plant
KRAFT CHEESE PLANT 5
Kraft Production Building
EXISTING 5-STORY BRICK BLDG.
STORAGE OF RESIN IN BARRELS 5
STORAGE OF BUILDING TILES
RAILROAD 5, 6
CARRIAGE HOUSE 4
EAST ILLINOIS STREET
COLUMBUS DRIVE (1983) 6
APPROXIMATE ZONE OF CONTAMINATED SOIL
D.A. STEWART LUBRICATING OIL COMPANY 3, 4
McCLURG COURT (1987) 6
5 SALAD OIL TANKS 5
POLICE HEADQUARTERS 5, 6
3 PETROLEUM U.S.T. 3
LIQUID CARBONIC ACID MFG. CO. 3/ D.A. STEWART LUBRICATING OIL CO. WAREHOUSE 4
NICKEL PLATE STOVE POLISH COMPANY 3, 4
PARKING GARAGE 5, 6
SUBSURFACE EXPLORATION LEGEND
BORINGS STS JOB #27313 (1992)
BORINGS STS JOB #27313XH (1992) (MW PREFIX INDICATES MONITORING WELL INSTALLATION)
TEST PITS STS JOB #27313XH (1992)
BORINGS STS JOB #25400XF (1988)
HISTORICAL REFERENCES
1. ROBINSONS ATLAS OF CHICAGO, FIRE INSURANCE MAP (1886)
2. GREELY CARLSON FIRE INSURANCE MAP (1891)
3. RASCHER FIRE INSURANCE MAP (1891)
4. SANBORN FIRE INSURANCE MAP (1905)
5. SANBORN FIRE INSURANCE MAP (1949)
6. AERIAL PHOTOGRAPHY OF SITE, MISC. YEARS 1938–1988
THE LOCATIONS OF THE HISTORICAL STRUCTURES AS ILLUSTRATED ABOVE ARE CONSIDERED APPROXIMATE AND ARE BASED ON THE REFERENCES LISTED.
HISTORICAL SITE USAGE DIAGRAM
PROPOSED NORTHWESTERN MEMORIAL HOSPITAL
GRAND/COLUMBUS/ILLINOIS/McCLURG COURT
CHICAGO, ILLINOIS
PCK 8/6/92
DLG 8/6/92
SAB 8/6/92
STS PROJECT NO 27313-XH
1" = 80'



DRAWN BY PCK DATE 8/6/92
CHECKED BY DLG DATE 8/6/92
APPROVED BY SAB DATE 8/6/92

EXTENT OF CONTAMINATION DIAGRAM
PROPOSED NORTHWESTERN MEMORIAL HOSPITAL
GRAND/COLUMBUS/ILLINOIS/McCLURG COURT

STS CONSULTANTS

STS PROJECT
27313-
STS PROJECT

SCALE
1" = 80'
SHEET NO
FIGURE

Table 3
Selected Chemical Testing Results
Results in mg/kg or mg/L [water samples]

	Soil Samples					Groundwater Samples			
	B-126	B-128	B-129	B-130	B-131	MW-128	MW-129	MW-130	MW-13
Volatile Organic Compounds (VOC)*									
Benzene	NT	NT	--	NT	--	--	--	--	--
Toluene	NT	NT	--	NT	--	--	--	0.13	--
Ethylbenzene	NT	NT	--	NT	--	--	--	--	--
Total Xylenes	NT	NT	--	NT	--	--	--	0.13	--
Tetrachloroethene	NT	NT	--	NT	--	--	--	--	--
Trichloroethene	NT	NT	--	NT	--	--	--	--	--
Tetrachloromethane	--	--	--	0.014	--	--	--	--	--
Carbon Disulfide	--	--	--	0.014	--	--	--	--	--
RCRA Heavy Metals*									
Barium	1.0	12.1	0.2	1.1	0.1	0.33	0.21	0.29	0.14
Lead	--	--	--	--	--	0.50	--	1.80	2.90
Chromium	--	--	--	--	--	--	--	0.06	--
Polynuclear Aromatic Hydrocarbons (PNA)									
Acenapthylene	NT	NT	NT	NT	NT	--	--	--	--
Acenapthene	NT	NT	NT	NT	NT	--	--	--	--
Fluorene	NT	NT	NT	NT	NT	--	--	--	--
Phenanthrene	NT	NT	NT	NT	NT	--	--	--	--
Anthracene	NT	NT	NT	NT	NT	--	--	0.087	--
Fluoranthene	NT	NT	NT	NT	NT	0.0021	--	--	--
Pyrene	NT	NT	NT	NT	NT	--	--	--	--
Benzo(a)anthracene	NT	NT	NT	NT	NT	0.00095	--	--	0.0001
Benzo(a)pyrene	NT	NT	NT	NT	NT	0.00097	--	--	0.0002
Chrysene	NT	NT	NT	NT	NT	--	--	--	--
Benzo(b)fluoranthene	NT	NT	NT	NT	NT	--	--	--	--
Benzo(k)fluoranthene	NT	NT	NT	NT	NT	--	--	--	--
Benzo(a)fluoranthene	NT	NT	NT	NT	NT	--	--	--	--
Benzo(g,h,i)perylene	NT	NT	NT	NT	NT	--	--	--	--
Napthalene	NT	NT	NT	NT	NT	--	--	0.37	--

Legend:
NT: Not Tested
--: Result below laboratory practical quantitation level (PQL)
* : Only compounds detected are listed

DLG/nt/AB1

CLIENT
Power/CRSS

LOG OF BORING NUMBER 8-106

PROJECT NAME
Northwestern Memorial Hospital

ARCHITECT-ENGINEER
Ellerbe Beckett/HOK

Consultants Ltd

SITE LOCATION
Grand/Columbus/Illinois/McClurg Ct.; Chicago, Illinois

DEPTH (FT) / ELEVATION (FT)	SAMPLE NO	SAMPLE TYPE	SAMPLE DISTANCE RECOVERY	DESCRIPTION OF MATERIAL	UNIT DRY WT LBS/FT.3	PHOTO-IONIZATION DETECTOR READING (PPM)
SURFACE ELEVATION				Continued from previous page		
40.0	10	ST		Silty clay, trace gravel, sand and shale - gray - medium (CL)	106	
		RB				
		VS		Field vane at 42.5 ft. s_u = 1319 psf		
		RB				
50.0	11	ST			108	
		RB				
		VS		Field vane at 47.5 ft. s_u = 1066 psf		
		RB				
60.0	12	ST			107	
		RB				
	13	ST			106	
		RB		Silty clay, trace gravel, sand and shale - gray - stiff (CL)		
65.0	14	ST				
		RB				
70.0	15	ST		Silty clay, trace gravel, sand and shale - gray - very stiff to hard (CL)		
		RB				
	16	ST				
		RB				
75.0	17	ST			123	
		RB				
	18	ST			112	
80.0		RB				

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.2: 1 2 3 4 5

PLASTIC LIMIT % × — WATER CONTENT % ● — LIQUID LIMIT % △: 10 20 30 40 50

STANDARD PENETRATION BLOWS/FT. ⊗: 10 20 30 40 50

6.3

* Calibrated Penetrometer

continued

The stratification lines represent the approximate boundary lines between soil types in-situ, the transition may be gradual

STS JOB NO 27313 | SHEET NO. 2 OF 3

STS Consultants Ltd.

CLIENT: Power/CRSS

LOG OF BORING NUMBER: B-106

PROJECT NAME: Northwestern Memorial Hospital

ARCHITECT-ENGINEER: Ellerbe Beckett/HOK

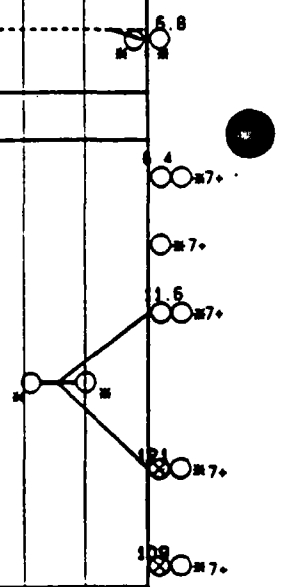
SITE LOCATION: Grand/Columbus/Illinois/McClurg Ct.: Chicago, Illinois

DEPTH (FT)	ELEVATION (FT)	SAMPLE NO	SAMPLE TYPE	SAMPLE DISTANCE	RECOVERY	DESCRIPTION OF MATERIAL	UNIT DRY WT. LBS./FT.3	PHOTO-IONIZATION DETECTOR READING (PPM)
						SURFACE ELEVATION		
						Continued from previous page		
80.0		19	ST			Silty clay, trace gravel, sand and shale - gray - very stiff to hard (CL)		
		20	ST			Clayey silt, little sand, trace gravel - gray - moist (ML)		
			RB					
85.0		21	ST			Silty clay, little sand, trace gravel and shale - gray - hard (CL)	131	
			RB					
		22	ST				132	
			RB					
90.0		23	ST					
			RB					
		24	ST					
			RB					
95.0		25	SS					
			RB					
		26	SS					
100.0						End of Boring Borehole grouted upon completion Casing used 35 ft. of 4 in.		

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.^{2}: 1 2 3 4 5

PLASTIC LIMIT % × — WATER CONTENT % ● — LIQUID LIMIT % △: 10 20 30 40 50

STANDARD PENETRATION BLOWS/FT. ⊗: 10 20 30 40 50

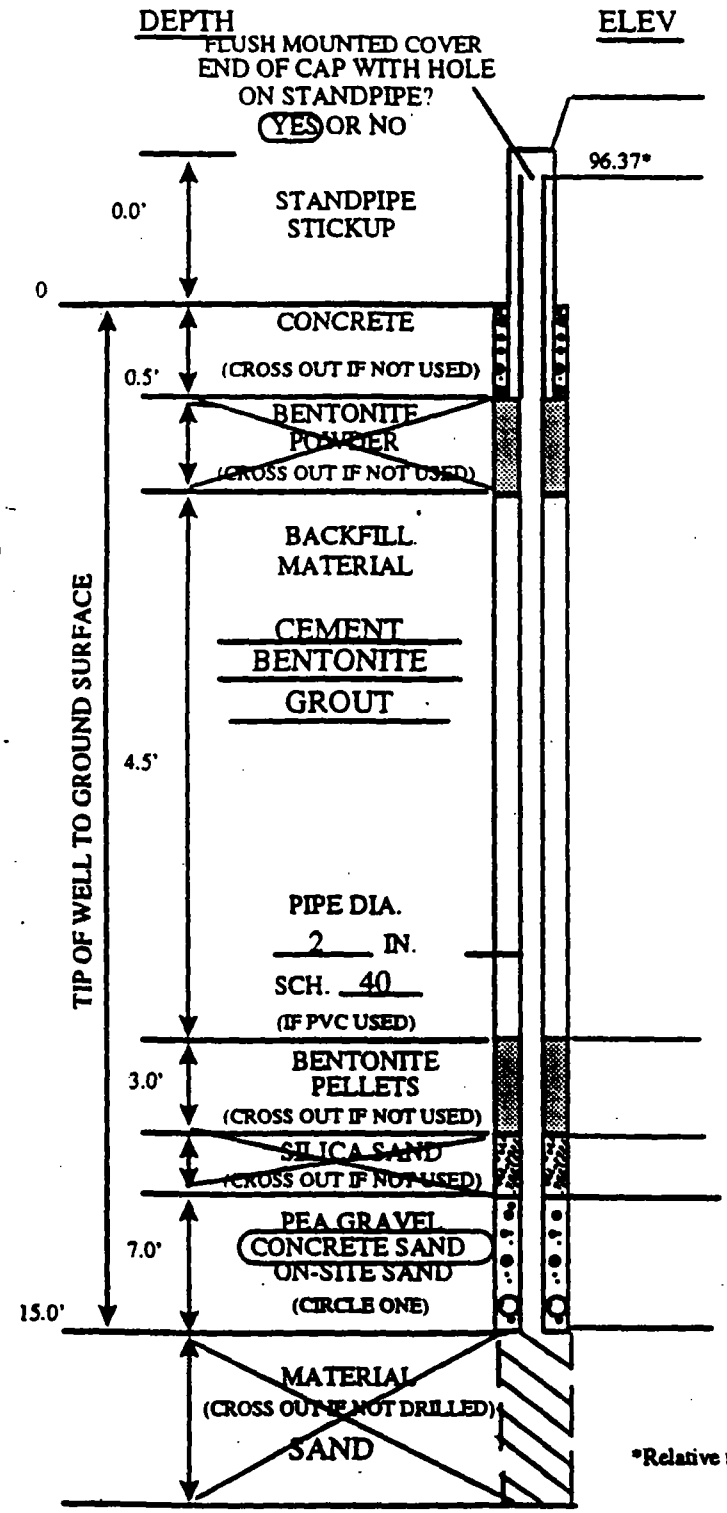


* Calibrated Penetrometer

The stratification lines represent the approximate boundary lines between soil types: in-situ, the transition may be gradual.

WL WS OR WD	BORING STARTED 07/17/92	STS OFFICE Northbrook-01	
WL BCR ACR	BORING COMPLETED 07/22/92	ENTERED BY KKB	SHEET NO. 3 OF 3
WL	RIG/FOREMAN B-61/DT	APP'D BY MAK	STS JOB NO 27313

STS Field Well Installation Diagram



1) TYPE OF PIPE
(PVC,) GALVANIZED, STAINLESS, OTHER _____

2) TYPE OF PIPE JOINTS
BELLED, COUPLINGS, (THREADED), OTHER _____

3) TYPE OF WELL SCREEN
PVC, GALVANIZED, (STAINLESS,) OTHER _____

4) SCREEN SLOT SIZE 0.01 inches

5) SCREEN LENGTH 5 feet

6) INSTALLED PROCTECTOR PIPE W/LOCK? (YES) OR NO

7) DRILLING METHOD Solid Stem Augers
DRILLING FLUID Water
BOREHOLE DIAMETER 4 inches

8) BACKFILL MATERIAL INSTALATION FROM
SURFACE (TREMIE)

9) HOW WAS WELL DEVELOPED?
(BAILING) PUMPING, SURGING, COMPRESSED AIR

10) APPROXIMATE WATER VOLUME REMOVED OR ADDED?
5 GAL, 10 GAL, 15 GAL, OTHER 4 gals

11) WATER CLARITY BEFORE DEVELOPMENT
CLEAR, TURBID, (OPAQUE)

12) WATER CLARITY AFTER DEVELOPMENT
CLEAR, (TURBID,) OPAQUE

13) DID THE WATER SMELL? YES OR (NO)

14) WATER LEVEL SUMMARY

1) DEPTH FROM T. STANDPIPE AFTER DEVELOPMENT?
13 feet FT OR (DRY)

2) OTHER MEASUREMENTS: SEE OBSERVATION WELL SUMMARY

DATE 9/11/92, 11.09 FT FROM T. ST. PIPE
DATE _____, _____ FT FROM T. ST. PIPE
DATE _____, _____ FT FROM T. ST. PIPE
DATE _____, _____ FT FROM T. ST. PIPE

*Relative to benchmark elevation = 100.00 feet

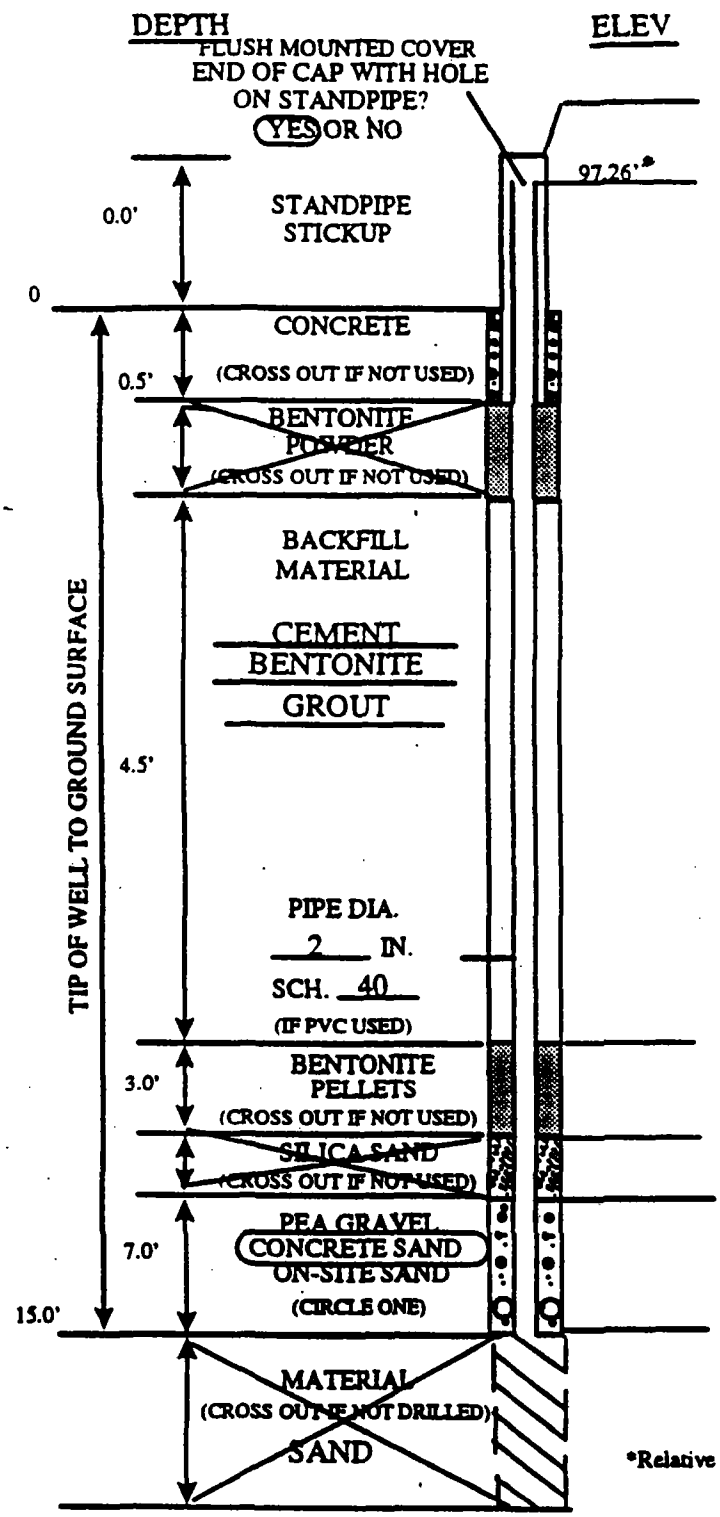
WELL NO. MW-128 DATE INSTALLED 9/5/92 DRILL RIG DR-9

DRILLER Dumas DRILL CREW Deon

JOB/CLIENT Proposed NWMH Facility Redevelopment Site/Power/CRSS STS PROJECT NO. 27313-XH

(Power/CRSS_mw-128/m11draw/nt) (VERSION 3: 08/91 - M11DRAW "FIELD_WELL_KAS")

STS Field Well Installation Diagram



1) TYPE OF PIPE
(PVC,) GALVANIZED, STAINLESS, OTHER _____

2) TYPE OF PIPE JOINTS
BELLED, COUPLINGS, (THREADED), OTHER _____

3) TYPE OF WELL SCREEN
PVC, GALVANIZED (STAINLESS,) OTHER _____

4) SCREEN SLOT SIZE 0.01 inches

5) SCREEN LENGTH 5 feet

6) INSTALLED PROCTECTOR PIPE W/LOCK? (YES) OR NO

7) DRILLING METHOD Solid Stem Augers
DRILLING FLUID Water
BOREHOLE DIAMETER 4 inches

8) BACKFILL MATERIAL INSTALATION FROM
SURFACE (TREMIE)

9) HOW WAS WELL DEVELOPED?
(BAILING) PUMPING, SURGING, COMPRESSED AIR

10) APPROXIMATE WATER VOLUME REMOVED OR ADDED?
5 GAL, 10 GAL, 15 GAL, OTHER 4 gals

11) WATER CLARITY BEFORE DEVELOPMENT
CLEAR, TURBID, (OPAQUE)

12) WATER CLARITY AFTER DEVELOPMENT
CLEAR, (TURBID,) OPAQUE

13) DID THE WATER SMELL? (YES) OR NO

14) WATER LEVEL SUMMARY

1) DEPTH FROM T. STANDPIPE AFTER DEVELOPMENT?
13 feet FT OR (DRY)

2) OTHER MEASUREMENTS: SEE OBSERVATION WELL SUMMARY

DATE 9/11/92 , 12.85 FT FROM T. ST. PIPE
DATE _____ , _____ FT FROM T. ST. PIPE
DATE _____ , _____ FT FROM T. ST. PIPE
DATE _____ , _____ FT FROM T. ST. PIPE

*Relative to benchmark elevation = 100.00 feet

WELL NO. MW-129 DATE INSTALLED 9/5/92 DRILL RIG DR-9

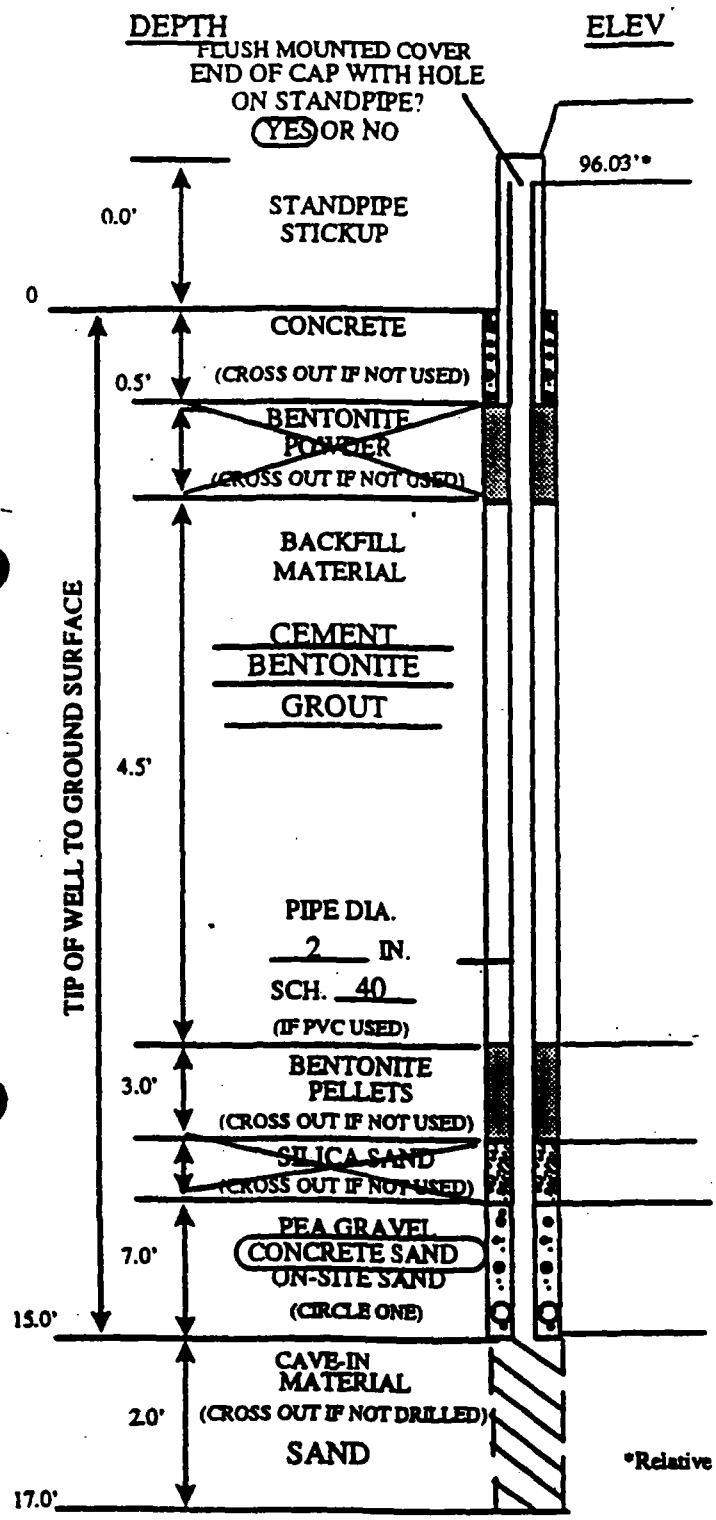
DRILLER Dumas DRILL CREW Deon

JOB/CLIENT Proposed NWMH Facility Redevelopment Site/Power/CRSS STS PROJECT NO. 27313-XH

(Power/CRSS_mw-129/m11draw/nt)

(VERSION 3: 08/91 - M11DRAW "FIELD_WELL_KAS")

STS Field Well Installation Diagram



1) TYPE OF PIPE
(PVC) GALVANIZED, STAINLESS, OTHER _____

2) TYPE OF PIPE JOINTS
BELLED, COUPLINGS, (THREADED), OTHER _____

3) TYPE OF WELL SCREEN
PVC, GALVANIZED (STAINLESS), OTHER _____

4) SCREEN SLOT SIZE 0.01 inches

5) SCREEN LENGTH 5 feet

6) INSTALLED PROCTECTOR PIPE W/LOCK? (YES) OR NO

7) DRILLING METHOD Solid Stem Augers
DRILLING FLUID None
BOREHOLE DIAMETER 4 inches

8) BACKFILL MATERIAL INSTALATION FROM
SURFACE (TREMIE)

9) HOW WAS WELL DEVELOPED?
(BAILING) PUMPING, SURGING, COMPRESSED AIR

10) APPROXIMATE WATER VOLUME REMOVED OR ADDED?
5 GAL, 10 GAL, 15 GAL, OTHER 4 gals

11) WATER CLARITY BEFORE DEVELOPMENT
CLEAR, TURBID, (OPAQUE)

12) WATER CLARITY AFTER DEVELOPMENT
CLEAR, (TURBID) OPAQUE

13) DID THE WATER SMELL? (YES) OR NO

14) WATER LEVEL SUMMARY

1) DEPTH FROM T. STANDPIPE AFTER DEVELOPMENT?
12.0 FT OR (DRY)

2) OTHER MEASUREMENTS: SEE OBSERVATION WELL SUMMARY
DATE 9/11/92, 11.87 FT FROM T. ST. PIPE
DATE _____, _____ FT FROM T. ST. PIPE
DATE _____, _____ FT FROM T. ST. PIPE
DATE _____, _____ FT FROM T. ST. PIPE

*Relative to benchmark elevation = 100.00 feet

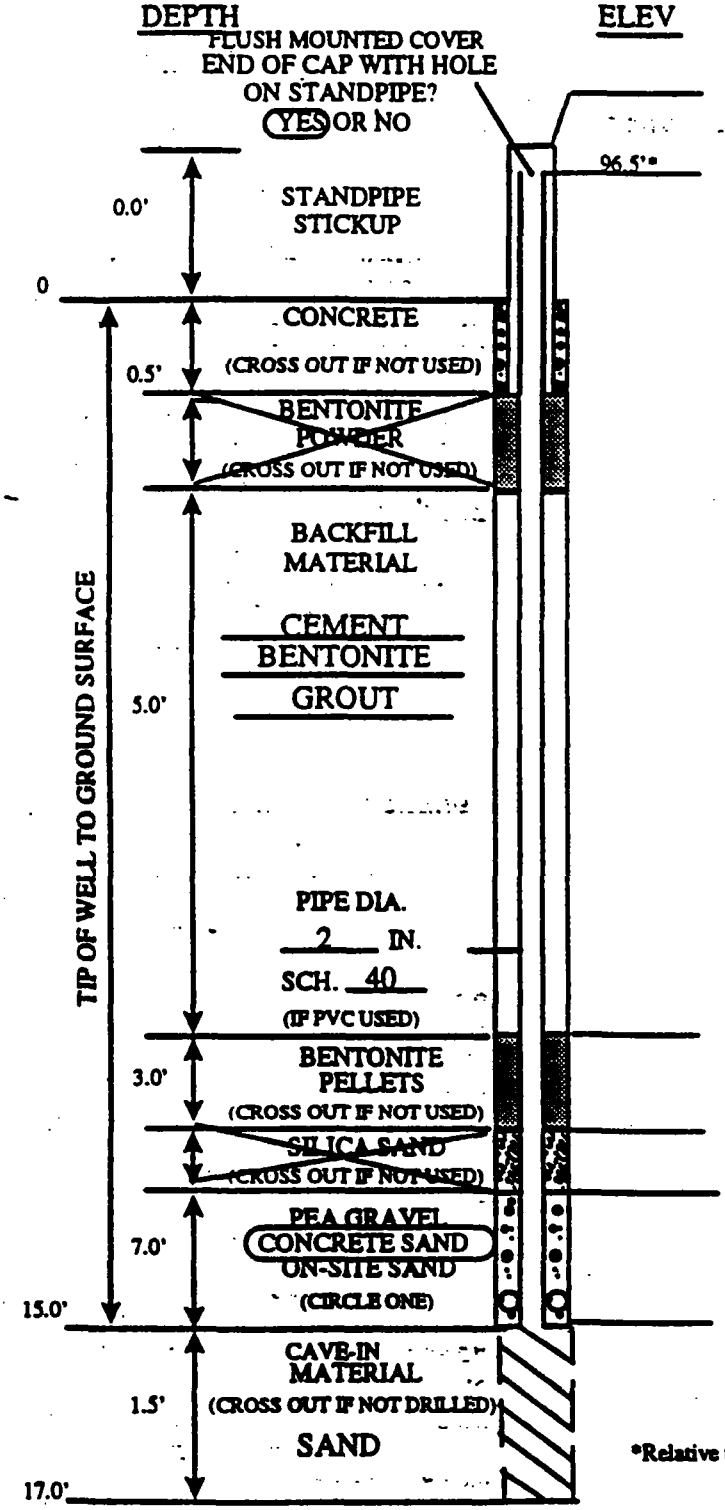
WELL NO. MW-130 DATE INSTALLED 9/5/92 DRILL RIG DR-9

DRILLER Dumas DRILL CREW Deon

JOB/CLIENT Proposed NWMH Facility Redevelopment Site/Power/CRSS STS PROJECT NO. 27313-XH

(POWER/CRSS_MW-130/M11DRAW/NT) (VERSION 3: 08/91 - M11DRAW "FIELD_WELL_KAS")

STS Field Well Installation Diagram



1) TYPE OF PIPE
(PVC) GALVANIZED, STAINLESS, OTHER _____

2) TYPE OF PIPE JOINTS
BELLED, COUPLINGS, (THREADED), OTHER _____

3) TYPE OF WELL SCREEN
PVC, GALVANIZED (STAINLESS), OTHER _____

4) SCREEN SLOT SIZE 0.01 inches

5) SCREEN LENGTH 5 feet

6) INSTALLED PROCTECTOR PIPE W/LOCK? (YES) OR NO

7) DRILLING METHOD Solid Stem Augers
DRILLING FLUID None
BOREHOLE DIAMETER 4 inches

8) BACKFILL MATERIAL INSTALATION FROM
SURFACE (TREMIE)

9) HOW WAS WELL DEVELOPED?
(BAILING) PUMPING, SURGING, COMPRESSED AIR

10) APPROXIMATE WATER VOLUME REMOVED OR ADDED?
5 GAL, 10 GAL, 15 GAL, OTHER 4 gals

11) WATER CLARITY BEFORE DEVELOPMENT
CLEAR, TURBID, (OPAQUE)

12) WATER CLARITY AFTER DEVELOPMENT
CLEAR, (TURBID), OPAQUE

13) DID THE WATER SMELL? YES OR (NO)

14) WATER LEVEL SUMMARY
1) DEPTH FROM T. STANDPIPE AFTER DEVELOPMENT
13 FT OR (DRY)
2) OTHER MEASUREMENTS: SEE OBSERVATION WELL SUMMARY
DATE 9/11/92, 12.22 FT FROM T. ST. PIPE
DATE _____, _____ FT FROM T. ST. PIPE
DATE _____, _____ FT FROM T. ST. PIPE
DATE _____, _____ FT FROM T. ST. PIPE

*Relative to benchmark elevation = 100.00 feet

WELL NO. MW-131 DATE INSTALLED 9/5/92 DRILL RIG DR-9

DRILLER Dumas DRILL CREW Deon

JOB/CLIENT Proposed NWMH Facility Redevelopment Site/Power/CRSS STS PROJECT NO. 27313-XH

(POWER/CRSS_MW-131/M11DRAW/NT) (VERSION 3: 08/91 - M11DRAW "FIELD_WELL_KAS")

REF. BASE MAP: USGS QUADRANGLE MAP
7.5 MINUTE SERIES (TOPOGRAPHIC)
CHICAGO LOOP
PHOTOREVISED 1972

N

LEGEND

SITE

- ● CERCLIS SITES
- ▲ RCRA GENERATORS AND [1] TSDS FACILITIES
- ■ UST SITES[2]
- ♦ LUST SITES[3]
- SOLID WASTE DISPOSAL SITES[4]

LEGEND

1. USEPA COMPUTER DATA BASE SEARCH DATED 5-21-91.
2. ILLINOIS STATE FIRE MARSHALL UNDERGROUND STORAGE TANKS (UST) DATA BASE 6-2-90.
3. ILLINOIS STATE FIRE MARSHALL LIST OF LEAKING UNDERGROUND STORAGE TANKS (LUST) INCIDENTS REPORT 5-1-91
4. NORTHEASTERN ILLINOIS PLANNING COMMISSION HISTORICAL INVENTORY OF SOLID WASTE DISPOSAL SITES 1987.

FIGURE 6

ALL LOCATIONS ARE APPROXIMATE

STS Consultants Ltd.
Consulting Engineers

HAZARDOUS WASTE FACILITIES
LOCATED IN U.S. POSTAL ZIP CODE AREA
60601, 60602, 60603, 60604, 60606
60611 AND PORTIONS OF 60610

DRAWN BY	DATE	SCALE	STS PROJECT NO
KKB	7-15-92	SHOWN	27313-XH
CHECKED BY	DATE	SHEET NO	STS FILE NO
DLG	7-15-92		27313-XH